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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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EXAMINER
D AGOSTA, STEPHEN M

ART UNIT	PAPER NUMBER
2683	

DATE MAILED: 10/19/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

PTO-90C (Rev. 10/03)

	Application No.	Applicant(s)
Office Action Summary	09/648,908	SHUPE ET AL.
	Examiner	Art Unit	
	Stephen M. D'Agosta	2683	

-- *The MAILING DATE of this communication appears on the cover sheet with the correspondence address* --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE <u>3</u> MONTH(S) FROM
THE MAILING DATE OF THIS COMMUNICATION.
- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed
after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any
earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on <u>03 September 2004</u>.

2a)☐ This action is **FINAL**.   2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is
closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-30* is/are pending in the application.

    4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-30* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

    Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

    Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

    a)☐ All   b)☐ Some * c)☐ None of:

      1.☐ Certified copies of the priority documents have been received.

      2.☐ Certified copies of the priority documents have been received in Application No. _____.

      3.☐ Copies of the certified copies of the priority documents have been received in this National Stage
application from the International Bureau (PCT Rule 17.2(a)).

    * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1)☒ Notice of References Cited (PTO-892)

2)☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)

3)☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
    Paper No(s)/Mail Date _____.

4)☐ Interview Summary (PTO-413)
    Paper No(s)/Mail Date. _____.

5)☐ Notice of Informal Patent Application (PTO-152)

6)☐ Other: _____.

DETAILED ACTION

Response to Arguments

Applicant's arguments with respect to claims 1-30 have been considered but are

moot in view of the new ground(s) of rejection.

1. Upon further review, the examiner believes a more favorable outcome will

occur if the applicant amends claims as follows:

    a. Claim 1 + claim 18 + (claim 30 or claim 15)

    b. Other variations based on other independent claims will work as well.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all

obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set
> forth in section 102 of this title, if the differences between the subject matter sought to be patented and
> the prior art are such that the subject matter as a whole would have been obvious at the time the
> invention was made to a person having ordinary skill in the art to which said subject matter pertains.
> Patentability shall not be negatived by the manner in which the invention was made.

Claims 1-2, 4-6, 8-11 and 18-24 and 30 rejected under 35 U.S.C. 103(a) as

being unpatentable over Sonti US 6,108,540 in view of Larkins US 6,295,291 and Duran

US 6,067,456 (hereafter Sonti, Larkins and Duran).

    As per **claims 1-2, 4-6, 8 and 23**, Sonti teaches a wireless communications
system including a Service Location Register, Switching Center and a subscriber (figure
1) the subscriber having at least one profile associated with the subscriber (abstract and
figures 2-4), a method of automatically updating the Switching Center with a change in
the subscriber's profile comprising:
        Receiving an update at a database regarding a change in the subscriber's profile
        In response to the received update, generating a request to the Service Location
Register to send a profile update for the subscriber to a Switching Center (C8, L25-67,
specifically L57-60 which states that the HLR sends any/all valid profile updates to the
MSC without MSC intervention).
But is silent on in response to the request and without underlined receiving a request for the
subscriber's profile from any MSC.
    Larkins teaches setting up a new subscriber telephone whereby the user selects
services for their new phone which are stored in the HLR and ultimately accessed by

the MSC (abstract, figures 1-2 for network and figures 3-6 for selection of services, C2, L49-53 and C4, L51 to 61 whereby the registration process enables the MSC to download a new profile) and **Duran** teaches a subscriber roaming into a new network and causing/initiating a "download" of their profile/services to the new network/switch (abstract, figure 1-2 and C3, L17 to C4, L61).

It would have been obvious to one skilled in the art at the time of the invention to modify Sonti, such that MSC prompting is not required, to provide automatic updates to an MSC(s) when an update occurs or as the user roams or needs service changes.

As per **claim 2**, Sonti teaches an HLR (C8, L57-60).

As per **claim 4**, Sonti teaches an MSC (C8, L57-60).

As per **claim 5**, Sonti teaches a wireless communication system including an HLR, MSC and a plurality of subscribers (figure 1) each of the subscribers having at least one profile associated with the subscriber, a method of automatically updating the MSC with a change in the subscriber profile, comprising
    Receiving an update at a database regarding a change in the subscriber profile
    In response to the update, Initiating a stored procedure in the database to generate a request to the HLR to send a Qualification Directive (QUALDIR) to the MSC the qualdir including an update to the subscriber profile,
    Sending the QUALDIR message to the MSC. (C8, L25-67, specifically L57-60 which states that the HLR sends any/all valid profile updates to the MSC without MSC intervention AND figure 7 shows a QUALDIR message w/profile between the MSC and HLR) **But is silent on** in response to the request and without <u>receiving a request for the</u> subscriber including the sending MSC. a new subscriber telephone whereby the user selects services for their new phone which are stored in the HLR and ultimately accessed by the MSC (abstract, figures 1-2 for network and figures 3-6 for selection of services, C2, L49-53 and C4, L51 to 61 whereby the registration process enables the MSC to download a new profile) <u>and</u> **Duran** teaches a subscriber roaming into a new network and causing/initiating a "download" of their profile/services to the new network/switch (abstract, figure 1-2 and C3, L17 to C4, L61).
    It would have been obvious to one skilled in the art at the time of the invention to modify Sonti, such that MSC prompting is not required, to provide automatic updates to an MSC(s) when an update occurs.

As per **claim 6**, Sonti in view of Morin teaches a wireless system having at least one subscriber with at least one profile, (figure 1), a system for automatically updating the Switching Center with a change in the subscriber's profile, the system comprising;

A database configured to receive an update regarding a change in the subscriber's profile and <u>in response to the update,</u> generate a request to send a profile to the Switching Center
    A SLR in communication with the database and being configured to:

Receive the request to send the profile update to the MSC (C8, L25-67, specifically L57-60).

But is silent on In response to the request and without receiving <u>a request for the subscriber's profile from</u> the MSC, send the profile update to the MSC.

Larkins teaches setting up a new subscriber telephone whereby the user selects services for their new phone which are stored in the HLR and ultimately accessed by the MSC (abstract, figures 1-2 for network and figures 3-6 for selection of services, C2, L49-53 and C4, L51 to 61 whereby the registration process enables the MSC to download a new profile) <u>and</u> **Duran** teaches a subscriber roaming into a new network and causing/initiating a "download" of their profile/services to the new network/switch (abstract, figure 1-2 and C3, L17 to C4, L61).

It would have been obvious to one skilled in the art at the time of the invention to modify Sonti, such that MSC prompting is not required, to provide automatic updates to an MSC(s) when an update occurs.

As per **claim 8**, Sonti teaches an MSC (C8, L57-60).

As per **claims 9, 11 and 20-22, 24**, Sonti teaches claim 6 **but is silent on** a Sybase database and a stored procedure.

The examiner interprets the MSC, HLR and/or VLR as hardware devices which contain database software to perform various functions and hence, the examiner takes *official notice* that commercially available database software used would include Sybase, Oracle, SQL Server, etc. as well as databases providing the ability to initiate stored procedures as programmed by the user.

As per **claims 10 and 18-19**, Sonti teaches claim 6 wherein the request generated by the database is a qualification directive (figure 7 shows a QUALDIR message w/profile between the MSC and HLR).

As per **claim 30**, Sonti teaches claim 1 wherein receiving an update comprises receiving an update adding a service to the subscriber's profile (Sonti teaches a mult-profile subscriber so changing from one profile to another inherently either adds, changes or deletes services – see abstract and figure 2-4a).

Claims 3 and 7 rejected under 35 U.S.C. 103(a) as being unpatentable over Sonti/Larkins/Duran and further in view of Dougherty US 6,393,271 (hereafter Dougherty).

As per **claim 3**, Sonti teaches claim 1 and service registers **but is silent on** a WSLR.

Dougherty teaches a system/method for wireline-based registration of wireless device (title and abstract and figure 1, #24).

It would have been obvious to one skilled in the art at the time of the invention to modify Sonti, such that a WSLR is used, so that a WSLR can be used instead of (or in place) of a generic Service Location Register.

As per **claim 7**, Sonti teaches claim 6 and service registers **but is silent on** a WSLR.

Dougherty teaches a system/method for wireline-based registration of wireless device (title and abstract and figure 1, #24).

It would have been obvious to one skilled in the art at the time of the invention to modify Sonti, such that a WSLR is used, so that a WSLR can be used instead of (or in place) of a generic Service Location Register.

Claims 12-14 and 25 rejected under 35 U.S.C. 103(a) as being unpatentable over Sonti/Larkins/Duran and further in view of Chang et al. US 5,958,016 (hereafter Chang).

As per **claims 12-14 and 25**, Sonti **is silent on** use of Web/Internet.

Chang teaches use of Web/Internet to allow subscriber profile changes and for subscriber access to billing, profiles, etc. (title, abstract, figures 1-2 and C2, L7-67 and C4, L45-58 - The control data input by the subscribers may control services facilitated through high level network control points. In an intelligent network implementation of a telephone network, for example, the control data is used to establish or modify call processing records stored in a service control point. The control data also may be used to modify individual subscriber profiles in central office switching systems of the telephone network.).

It would have been obvious to one skilled in the art at the time of the invention to modify Sonti, such that Web/Internet access can be used, to provide ubiquitous access to anyone wishing to view their account AND/OR for allowing customer service to be remotely located from the MSC/HLR/Servers.

Claims 15-17 rejected under 35 U.S.C. 103(a) as being unpatentable over

Sonti/Larkins/Duran and further in view of Foti US 5,913,165 (hereafter Foti).

As per claims **15-17**, Sonti is silent on including at least one feature set.
Foti teaches changing service feature(s) [title].
Larkins teaches setting up a new subscriber telephone whereby the user selects services for their new phone which are stored in the HLR and ultimately accessed by the MSC (abstract, figures 1-2 for network and figures 3-6 for selection of services, C2, L49-53 and C4, L51 to 61 whereby the registration process enables the MSC to download a new profile) and **Duran** teaches a subscriber roaming into a new network and causing/initiating a "download" of their profile/services to the new network/switch (abstract, figure 1-2 and C3, L17 to C4, L61).

It would have been obvious to one skilled in the art at the time of the invention to modify Sonti, such that service features are included, to provide means for automatically updating MSC profiles and service features.

Claims 26-29 rejected under 35 U.S.C. 103(a) as being unpatentable over Sonti

in view of Larkins and Duran and Cianfrocca et al. US 6,099796 (hereafter Cianfrocca).

As per **claims 26 and 28**, Sonti teaches a wireless communications system including a Service Location Register, Switching Center and a subscriber (figure 1) the subscriber having at least one profile associated with the subscriber (abstract and figures 2-4), a method of automatically updating the Switching Center with a change in the subscriber's profile comprising:

Receiving an update at a database regarding a change in the subscriber's profile

generating a request to the Service Location Register to send a profile update for the subscriber to a Switching Center in response to the update (C8, L25-67, specifically L57-60 which states that the HLR sends any/all valid profile updates to the MSC without MSC intervention).

But is silent on using a database client connection to update a database AND in response to the request and without receiving a request for the subscriber's profile from any MSC.

Larkins teaches setting up a new subscriber telephone whereby the user selects services for their new phone which are stored in the HLR and ultimately accessed by the MSC (abstract, figures 1-2 for network and figures 3-6 for selection of services, C2, L49-53 and C4, L51 to 61 whereby the registration process enables the MSC to download a new profile) and Duran teaches a subscriber roaming into a new network and causing/initiating a "download" of their profile/services to the new network/switch (abstract, figure 1-2 and C3, L17 to C4, L61).

Cianfrocca teaches running a database engine on its own computer that may also be situated inside the DMZ and outside your firewall since many database engines accept connections from database client-programs on particular TCP ports that may or may not be configurable (figure 4 and C17, L19-67). The database server(s) would be able to receive database updates via said database client connection based on the way the system is designed in figure 4.

It would have been obvious to one skilled in the art at the time of the invention to modify Sonti, such a database client connection is used and that MSC prompting is not required, to provide database connectivity via commercial software over the Internet and automatic updates to an MSC(s) when an update occurs.

As per **claims 27 and 29**, Sonti in view of Cianfrocca teaches claim 26/28 **but is silent** on the database connection comprises a request initiated from an HTTP (web) client.
Cianfrocca teaches connecting the database server(s) to the Internet which are inherently accessible from a browser-based computer (eg. via Windows Explorer).
It would have been obvious to one of ordinary skill in the art at the time of applicant's invention to modify Sonti in view of Cianfrocca, such that the database connection comprises a request from a HTTP client, to provide means for any browser-based user to access the server(s)/MSC/SLRs no matter where they are located.

Conclusion
Any inquiry concerning this communication or earlier communications from the examiner should be directed to Stephen M. D'Agosta whose telephone number is 703-306-5426. The examiner can normally be reached on M-F, 8am to 5pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Bill Trost can be reached on 703-308-5318. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Stephen D'Agosta
9-29-30

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